[0064] Layer B arranged on a lower side in **FIG. 7** includes, in a downward direction, a third transparent resistive film **16**, a fourth transparent resistive film **17**, a glass substrate **18**, and second dot spacers **19**.

[0065] Preferably, as shown in **FIG. 7**, the first dot spacers **15** are higher density than the second dot spacers **19**, for example, 2 times or more. However, the present invention contains the state of the density of the spacers **19** are equal or less than that of the spacers **15** as obtaining an effect of the present invention.

[0066] The first transparent film **11** forms a surface of the touch panel input device **100** and includes a plastic resin film of, for example, polyethylene terephthalate (PET) as in the prior art examples. The film **11** is flexible to easily bend in response to pressure of a finger of the user.

[0067] The first transparent resistive film **12** is a transparent conductive film of, for example, ITO or SnO_2. The film **52** is arranged entirely on a lower surface of the first transparent film **11** and has nearly a uniform thickness. When the film **11** is pressed, the film **12** is distorted together with the film **11**.

[0068] The second transparent resistive film **13** includes, like the film **12**, a transparent conductive film of same materials. The film **12** is disposed entirely on an upper surface of the second transparent film **14**.

[0069] The second transparent film **54** is disposed as a bottom section of layer A, entirely on the film **14**, the second transparent resistive film **13** is formed with nearly a uniform thickness.

[0070] The first dot spacers **15** are arranged with (nearly) an equal interval therebetween on the second transparent resistive film **13** on the second transparent film **14**. The spacers **15** prevent contact between the transparent resistive films **12** and **13** in a non-input state.

[0071] The third transparent resistive film **16** is, like the first and second transparent resistive films **12** and **13**, a transparent conductive film made of same materials. The film **16** is arranged entirely on a lower surface of the second transparent film **14** and has a uniform thickness.

[0072] The fourth transparent resistive film **17** includes, like the first to third transparent resistive films **12**, **13**, and **16**, a transparent conductive film made of same materials. The film **17** is disposed entirely on an upper surface of the glass substrate **18**, which will be described below.

[0073] The glass substrate **18** is a glass substrate and/or a hard materials, for example, (a) hard plastics forming a bottom section of the touch panel **100**. Disposed entirely on the glass substrate **18** is the fourth transparent resistive film **17** with nearly a uniform thickness.

[0074] The second dot spacers **19** are disposed with an equal interval therebetween on the fourth transparent resistive film **13** on the glass substrate **18**. The spacers **19** prevent contact between the transparent resistive films **16** and **17** in a non-input state.

[0075] According to the interval of the dot spacers **15** and **19**, strength of pressure (of depression) of a pen or a fingertip can be adjusted.

[0076] The touch panel input device **100** as the embodiment of the present invention shown in **FIG. 7** includes two layers, i.e., layers A and B as described above. Layer A can be regarded as a first touch panel for finger input including a film, not a glass substrate, as its bottom. It can be considered that layer B is a second touch panel for pen input including a glass substrate as its bottom.

[0077] **FIG. 8** shows in a block diagram an outline of structure of the touch panel input device **100** configured as the first embodiment in accordance with the present invention. The device **100** of **FIG. 8** includes a touch panel **21**, a touch panel controller **22**, a controller **23**, and a display section **24**.

[0078] The touch panel **21** is a transparent touch panel constructed as shown in **FIG. 7**. The panel **21** is placed onto the display section **24**, which will be described later. Resultantly, information displayed on the display section **24** is visually checked via the touch panel **21** by the user.

[0079] The touch panel controller **22** supervises layers A and B of the 2-layer touch panel **21** in which layers A and B are independently controlled. For example, the controller **22** senses a coordinate position depressed by a pen or a finger(tip).

[0080] The controller **23** supervises operations of the touch panel input device and includes a central processing unit (CPU) and a memory, not shown. The controller **23** reads from the memory a control program to supervise overall operation of the touch panel input device and executes the program by the CPU to achieve the control operation. Additionally, the controller **23** also conducts display control. That is, the controller **23** is connected to the display section **24** to change contents displayed on the display section **24** according to input coordinate data sensed by the touch panel controller **22**.

[0081] The display section **24** is a display unit to display various information items in response to control indication from the controller **23** and includes, for example, a liquid crystal display (LCD). The display section **24** in the embodiment may display a selection screen selected by the user and/or a screen containing information of notification for the user.

[0082] **FIG. 9** shows an outline of constitution of the touch panel controller in the touch panel input device as the first embodiment of the present invention. The configuration of **FIG. 9** includes a touch panel controller **22** connected to the first touch panel **21***a* including the first and second transparent resistive films corresponding to layer A shown in **FIG. 7**. The touch panel controller **22** includes analog switches **31** and **32**, A/D converters **33** and **34**, and analog switches **35** and **26**.

[0083] Connected further to the touch panel controller **22** is the second touch panel **21***b* including the third and fourth transparent resistive films associated with layer B of **FIG. 7**. The controller **22** additionally includes analog switches **41** and **42**, A/D converters **43** and **44**, and analog switches **45** and **46**.

[0084] Under supervision of the controller **23** shown in **FIG. 8**, the touch panel controller **22** can control operation of peripheral circuits of the touch panel **100** independently for the first touch panel **21***a* of layer A and the second touch panel **21***b* of layer B.